Environmental Disclosure and Targets in Environmental Reports: Impression Management or Legitimacy Theory.

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Environmental reporting within the annual report has increased in frequency and length over the last few years. Despite this growth, relatively little is known about the reporting, content and subsequent monitoring of environmental targets that may form part of environmental disclosure. Further, their unregulated nature means that management have great discretion when reporting.

This paper adds to research in this emerging area. In particular, it explores a relatively unexplored area of corporate reporting the use by companies of environmental targets. In a longitudinal study, we look at the reporting of environmental targets by 20 UK companies from 2004- 2008. We find widespread use of targets. We also find evidence of a difference in usage between those companies that are in high –impact environmental sectors and those that are in low-impact environmental sectors. First, we find that, in general, high-impact companies use more targets than low-impact ones. Second, overall we find that companies prefer to use less precise targets (in terms of quantification and time period specified). However, high-impact companies used much more precise targets than low-impact companies. Third, overall we find that companies disclose those targets that they meet while not disclosing those that they have missed. However, once more we find that it is the high-impact companies that are most likely to disclose targets that they have not met.

Overall, therefore, these findings are consistent with the idea that companies are managing their presentation of targets. However, high-impact companies appear to be presenting more detailed information and more negative information. This is consistent with legitimacy theory in that these companies are using environmental disclosures as a means of signalling their commitment to the environment.

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Introduction

An important trend in recent decades has been the increase in environmental reporting within the annual report and elsewhere, for instance stand alone reports. The voluntary nature of environmental information contained both in the annual report and in the stand alone environmental report has been subject to considerable research activity (see, for example, Hughes et al 2000, 2001; Patten 2002; Wiseman 1982).

A particular area of interest has been the association between voluntary environmental disclosure in the annual report and public relations/ impression management. In other words: is the voluntary environmental disclosure driven by a wish for companies to present themselves to their relevant publics/ users in a favourable light. Such motivations would be consistent both with the Voluntary Disclosure literatures which suggest that good performers will disclose more information to signal their good environmental performance (see Dye 1985; Verrechia 1983; Clarkson et al. 2008) and the Impression Management literature. Studies on voluntary presentation disclosures, such as graphs (Beattie and Jones 1992 ,2000, 2008) and photographs (Mckinstry 1996; Preston, Wright and Young 1996; Campbell, McPhail and Slack, 2009) have suggested that companies attempt to present themselves in a more favourable than unfavourable light. A variety of studies have also found that companies with good environmental performance present more information than bad environmental performers (e.g. Al-Tuwaijir et al. 2004; Clarkson et al. 2008).[1] There is also a body of research literature which states that those companies with a high impact upon the environment disclose more than those with a low impact.

[1] There have, however, been some countervailing studies (e.g. Patten 2005; Cho et al 2009)

Although there have been numerous prior studies on environmental disclosure involving content analysis (e.g. Neu, Warsame and Pedwell 1998; Harte and Owen 1991; Raar 2007), there has been, to our knowledge no studies at all on managerial environmental targets. This is somewhat surprising for several reasons. First, most companies that provide environmental disclosure within the annual report produce targets of some sort (whether they be called objectives, budgets, aims or targets).[2] Second, these targets are important indicators of future managerial environmental plans and such forward looking environmental planning is politically important given, for example, the environmental concerns expressed at global conferences such as Kyoto, Rio de Janeiro and Copenhagen. Third, over time, it is possible to track whether companies have met, changed or discontinued these targets. Fourth, the disclosure and measurement of environmental targets provides a new forum in which to test the voluntary disclosure and impression management theories.

In this study, we have three main research objectives. First, to describe and document, for the first-time, the use of environmental targets used as part of environmental disclosure within annual reports. Second, to test the interrelated theories of impression management and voluntary disclosure in a novel, unregulated research environment. Third, to test whether high-impact environmental companies have different disclosure policies to low-impact environmental companies.

This research makes three important research contributions. First, it provides information on how management uses and abuses managerial targets in environmental reporting for the first time. This adds a new dimension to the environmental disclosure literature. Second, it provides new evidence, from an unexplored research area, to test the voluntary disclosure and impression management theories. And, finally, it provides new insights to the relationship between industrial sector, environmental disclosure and impression management.

[2] From now on we use 'targets' to describe any forward-looking projection by a company that can be quantified in some way (even if the company itself does not quantify it)

The rest of the paper is structured as follows. In section 2, we provide a literature review which outlines, in particular, the prior findings into the association between environmental disclosure and impression management. Then we outline our methods in section 3, which principally consisted of content analysis. In section 4, we present two sets of findings those which describe environmental disclosure and those related to impression management. In the final two sections we then discuss our findings within the context of the prior literature before we offer some conclusions.

Literature Review: Environmental Disclosures.

There is significant literature surrounding the relationship between environmental performance and the levels of disclosures offered by firms, dating back as far as Ernst & Ernst's annual report surveys of the mid-1970s (Ernst & Ernst, 1973). A large number of studies on environmental disclosures (e.g. Cho & Patten, 2008; Freedman & Stagliano, 2002; Gamble et al., 1995; Kreuze et al., 1996) report that, whilst the extent of environmental disclosures varies across time and across markets, the level of information tends to be somewhat limited. Also, despite endless resources and studies in the past 35 years (e.g. Al-Tuwaijri et al., 2004; Fekrat et al., 1996; Freedman and Wasley, 1990; Hughes et al., 2000 & 2001; Ingram and Frazier, 1980; Patten, 2002; Wiseman, 1982), certain elements, such as environmental target monitoring and reporting, have not to our knowledge been studied. The US Government Accountancy Office (GAO) investigated corporate environmental disclosures in July 2004 (GAO, 2004). Within this report, the GAO suggests that the difference in levels of disclosure could be attributed to differences in the materiality of environmental spending/exposure across firms. However, they argue that without access to company information, it would be impossible to assess whether inadequate disclosures are

down to non-compliance or the lack of progress made with regards to measuring environmental performance. However, there is no evidence to support these claims.

Early studies by Dye (1985) and Verrecchia (1983) found evidence to suggest a positive association between environmental performance and the level of discretionary environmental disclosure; this later became known as the Voluntary Disclosure Theory (VDT). This economic-based theory further suggests the idea that those superior environmental performers, with an active environmental strategy, will focus on using environmental performance indicators which inferior firms find it difficult to imitate (Clarkson et al., 2008). Poorly performing companies, by contrast, will choose to disclose less, and sometimes no, information with regards to their environmental performance (Clarkson et al., 2008). Thus, from a VDT perspective, superior environmental performers disclose their 'green' credentials to signal their proactive strategy. According to Lang & Lundholm (1992), a firm's performance must exceed some threshold value before it warrants incurring the cost of disclosure, and the more sensitive a firm is to the perception of outsiders, the greater the levels of disclosure. Their evidence provides additional weight to VDT, as it suggests that a firm will increase levels of disclosure year-on-year if performance is improving. However, they also indicate that an absence in disclosure will lead to investors or other stakeholders assuming the worst possible scenario. Dye (1986) implies that information may not be disclosed if it reveals proprietary information. Dye (1985) and Jung & Kwon (1988) show that, if it is uncertain whether a firm actually possesses information about its value, then one with negative information can choose not to disclose, and pose as an organisation which possess no information at all. Verrecchia (1983 & 1990) shows that when it is costly for companies to disclose information, then only those with positive news will see it as worthwhile to actually incur the cost and disclose the information.

More recent studies by Al-Tuwaijri et al. (2004) and Clarkson et al. (2008) support these findings and highlight a positive association between environmental performance and environmental disclosures. Al-Tuwaijri et al. (2004) found that superior performers provided more extensive quantifiable disclosures of environmental information than inferior performers. Clarkson et al. (2008) further claim that superior environmental performers disclose more purely discretionary information, as predicted by the economic-based VDT. Also, Brammer et al. (2006) found "*Less indebted companies with dispersed ownership characteristics are significantly more likely to make voluntary environmental disclosures, and that the quality of disclosures is positively associated with firm size and corporate environmental impact*."

There is, however, some countervailing evidence, Rockness et al. (1986) and Freedman & Jaggi (1992) found the association between environmental performance and levels of disclosure to be statistically insignificant. In addition, Hughes et al. (2001) found that poorer U.S. environmental performers tended to make the most disclosures, consistent with their responsibility to report contingent liabilities under SFAS 5. However, although these disclosures differed between groups, these researchers found them not to be useful in classifying the firms' actual environmental performance.

Cho et al. (2009) examined three potential explanations as to why some companies disclose their environmental capital spending while others do not. They found that "*on average across time, the disclosed environmental capital expenditure amounts do not appear to be in excess of quantitative materiality thresholds, suggesting that the choice to reveal the spending is discretionary".* This would seem to add additional weight to the theory that those companies who do not disclose this information choose not to do so due to little progress being made. It further suggests that disclosing companies see this as adding strategic value. Conversely, Cho et al. (2009) also found evidence to suggest that it is not always the superior

environmental performers who disclose the most information. However, their study is only based on large firms from a small number of industries and focuses solely on one aspect of environmental performance: Toxic Release Inventory, which means it cannot be generalised.

Clarkson et al. (2008), whilst suggesting that socio-political theories (such as stakeholder and legitimacy theory) are not robust in predicting the level of discretionary environmental disclosures, found firms with unfavourable prior year media coverage are more likely to make soft claims (i.e. not readily verifiable) of being committed to the environment. This behaviour cannot be attributed to economic disclosure theories such as VDT, which assume truth-telling. Thus, socio-political theories do indeed explain additional patterns in the data. Socio-political theories predict a negative association between environmental performance and level of discretionary environmental disclosures. According to Patten's (2005) study based on 355 sets of projected/actual spending drawn from 10K reports for fiscal years 1993 through 2002, there are two problems with the current state of environmental disclosures. The first is a lack of compliance. Patten (2005) found only a relatively small percentage of companies even disclose environmental spending. This adds robustness to previous studies by Larrinaga, Carrasco, Correa, Llena, and Moneva (2002) with respect to environmental reporting in Spain, and by Adams, Coutts, and Harte (1995) relative to discrimination disclosures in UK. Secondly, Patten (2005) argues most disclosures are more misleading than helpful, and claims poor environmental performers face more political and social pressures, along with threatened legitimacy, and will tend to adjust stakeholder perceptions of the companies via an increase in discretionary environmental disclosures. Patten (2005) echoes Gray and Bebbington's (2000) concerns that environmental disclosures are a legitimating device and not an accountability measure. In order for it to become an accountability measure, the accuracy, rather than the quantity, of disclosures needs to be improved. According to Bewley & Li (2000), VDT suggests that companies are using disclosures to

signal an "*unobservable pro-active strategy toward environmental concerns relative to poorer performing firms";* legitimacy theory (see, Deegan, 2002) argues that environmental disclosures are primarily used as a tool to reduce exposures to social and political pressures. Cho et al. (2009) provide additional support for legitimacy theory over VDT as they found that firms with worse environmental performances are more likely to disclose spending amounts than superior environmental performers. However, a number of studies (see, Cho and Patten, 2007; Clarkson et al., 2008 & Patten, 2002) provide conflicting results. Barbara Young, CEO of the Environment Agency, believes that, despite the obvious improvement in disclosures from 2004-2007, the levels of quantitative disclosures on environmental risks that are financially material to shareholders and potential investors remain relatively low (Trucost, 2007).

Overall, therefore, the prior literature on the association between environmental performance and environmental disclosures is mixed. The majority of studies support the Voluntary Disclosure Theory which argues that companies will disclose more environmental information if they are good environmental performers. However, a significant minority of studies suggest the reverse finding, consistent with legitimacy theory, that poor performers will produce more environmental information than good performers.

So far, there have been no studies which have sought to test environmental performance against the disclosure of managerial environmental targets. Using the prior literature it is not possible definitively to hypothesise whether environmental performance will be positively or negatively associated with the nature and disclosure of environmental targets.

We draw up the following broad hypotheses:

1. Companies will, ceteris paribus, provide general rather than specific targets.

We believe this to be true as it would enable companies the latitude to interpret the results in a favourable way.

2. Companies will, ceteris paribus, disclose more targets which are met than those which are not met.

   We believe this to be true as this would portray them in a better light.

3. Companies will, ceteris paribus, replace failed targets with softer targets.

   We believe this to be true as this would portray them in a better light.

4. Companies from industrial sectors which have high impact on the environment will provide higher levels of disclosure than those companies with low impact.

   We believe companies will do this as high-impact companies will be seeking to legitimate their activities.

Method

We selected companies and related environmental disclosures within their annual reports covering the period 2004-2008. Ten of these from companies with a high-environmental impact and ten with a low environmental impact. These categories were selected with reference to the prior literature. We followed prior research which has shown a difference between environmentally-sensitive and non-environmentally sensitive industries (e.g. Cho and Patten, 2007; Jose and Lee, 2007; Raar, 2007). The companies are listed in Table 1.

. *Insert Table 1 about here.*

We collected information on all environmental targets disclosed over these 5 years. This enabled us to track any changes in these targets over time. Also, more particularly, it enabled us to see whether the company's met their self-set and self-monitored targets. It should be stressed that the level of Social Environmental Reporting Assurance which is currently

undertaken by companies is currently unknown. Therefore, it is not at all certain that these internally-generated and disclosed environmental targets are subject to any assurance at all. From the 100 environmental disclosure sections we analysed we collected five different sets of information. First, we collect the number and value of the individual targets set (this comprised overall number of targets, nature of target by environmental area, time-period covered and specific maturity dates). Second, we recorded on a longitudinal basis whether the targets which were set were, in fact, met. Third, we tested whether the population of failed targets were replaced by softer targets. Finally, we collected data on attribution to see whether companies attributed the successful meeting of targets to themselves and unsuccessful meeting of targets to the environment.

Findings

We analysed the contents of the twenty companies over five years from 2004-2008. We took 2004 as the base year. We recorded the existence of any targets in the appropriate environmental report section of the annual report. We used a standardised research instrument. In Appendix 1 we present an example from one company. The data was collected by a research assistant. It was then checked by one of the researchers. We thus measured the targets in subsequent four years against 2004 as our benchmark. Our results are presented below. When we set up our study we were particularly motivated to explore differences between dirty companies and clean companies. These companies were, as discussed earlier, drawn up with reference to the prior literature

Overall, as shown in Table 2 we found that there were 267 targets disclosed across the 20 companies over the 5 years (on average this was thus 2.67 targets per year). Generally, the number of targets disclosed was relatively stable ranging from a high in 2004 of 57 to a low in 2007of 49. Consistently, high impact sector companies disclosed more targets than

cleaner, low impact sector companies (on average 2.9 as against 2.4). Individual companies ranged from Barclays and Xstrata both with 20 targets over 5 years to Charles Stanley and 3i Group with 10 targets over 5 years.

Insert Table 2 about here

In Tables 3 and 4 we present data on the type of targets that were disclosed. We classified the targets into four. In these two tables, we show only initial targets set in all years**.** It can thus be seen that after 2004 where 26 targets were recorded for clean companies and 32 for dirty companies then only 6 new targets were introduced by those companies in environmentally sensitive industries as opposed to 16 targets that were set by those in environmentally less-sensitive industries.

These are displayed below in terms of specifity.

Targets by type

Type 1 Generic target, not quantified, no time period (e.g. reduce emissions)

Type 2 Target quantified, no time period (e.g. reduce emissions by 10%)

Type 3 Generic target, time period specified (e.g. reduce emissions by 2010)

Type 4 Target quantified and time period specified (e.g. reduce emissions by 10% by 2010)

Insert Tables 3 and 4 about here

We thus start at Type 1 with very general targets with no quantification and no time period. These targets thus do not pin companies down. They were very popular and overall were the second most popular target. They were especially popular for clean sector companies. The next level of specificity was where the time period was not specified but the quantity was. These two types of target where there was no specification of time constituted the majority of the targets 46 out of 80 targets. This was particularly true for clean sector companies where 27 out of the 42 targets were Types 1 and 2. Type 3 targets are specific in that they specify the year but not the quantity. Perhaps surprisingly these targets were not much used.

Interestingly, the most specific type of target where both time and quantity were specified, type 4 targets, were used in 32 instances. Perhaps contrary to expectations companies were thus on certain occasions prepared to specify targets in some detail.

Tables 5 and 6 show subsequent reporting (or lack of reporting) on targets. In table 5, 2004 is high year due to all initial targets captured in that year for the period of study. Subsequent years show new or amended targets only and do not double count targets outlined earlier. In Table 5 all the targets for the environmentally low impact companies are tracked. There are 157 targets tracked across the four types with 58 being Type1 and 46 being Type 4.

Insert Table 5 about here

In Table 6 all the targets for the environmentally high impact companies are tracked. There are more targets for these companies with 175 targets tracked across the four types. For these companies, there were far more Type 4 targets with 87 being Type 4, 47 being Type 1 and 36 being Type 2.

Insert Table 6 about here

There were four categories for reporting on targets. These are shown for each year in Tables 5 and 6.

Cat 1 Target met and disclosed

Cat 2 Target NOT met and disclosed

Cat 3 No disclosure (not known whether met or NOT met)

Cat 4 Replacement/new target.

In general, given the evidence of impression management from the prior literature one might expect that behaviourally firms might be expected to disclose when they were meeting targets, but not disclose when they were not. As alternatives to not disclosing failed targets companies might decide to not disclose the target at all. Thus, it will be unclear as to whether

the target was met or not. Or alternatively the targets might be replaced with a new target. To provide an analysis of this we provide a summary of disclosure categories in Tables 7 and 8. Like Tables 5 and 6 they provide data both on category and type, but in this case the data is aggregated. Table 7 provides the data for the environmentally low impact companies while Table 8 provides the data for the environmentally high impact companies.

In Table 7 the most popular category of target disclosure was when the company had met its target. This occurred in 50 cases out of 131. There were also 52 cases where there was no disclosure of the target in subsequent years or where the target was either replaced or substituted with a new target. In total these case totalled 102 out of 131 cases. There was thus only a minority of cases where the companies disclosed a target that they had not met.

Insert Table 7 about here

In Table 8 which concerned the environmentally sensitive companies once again the most popular category of target disclosure was when the company had met its target. This happened in 58 cases out of 143. However, Unlike the Environmentally low impact companies these high impact companies also more often disclosed when they had failed to meet their targets. From the impression management theory this result is unexpected as it would seem that both sets of companies would not with to disclose bad news. However, it is congruent with legitimacy theory where environmentally sensitive companies might be wishing to appear honest and transparent in their reporting. There were also 26 cases where there was no disclosure of the target. This is much less than for the environmentally low impact companies. Also by contrast to the environmentally low impact companies, environmentally sensitive (high impact) companies disclosed far fewer instances where the targets had been replaced.

Insert Table 8 about here

We, therefore, found different patterns of disclosure between the environmentally low impact companies and environmentally high impact companies. In particular, environmentally high impact companies were more likely to disclose when they had not met their targets. Further analysis of the data by the specific content of the disclosures will help to clarify whether these differences in disclosure are affected by the nature of the targets disclosed.

Discussion and Conclusion

Environmental Reporting has increased in frequency over the last few years.
It is used by companies to present a wide range environmental information. However, even though environmental reporting is widely used and has a considerable literature base in the voluntary disclosure area, relatively little is known about the reporting, content and monitoring of environmental targets provided by companies in their environmental disclosure. This paper provides information and discussion about this understudied but common element of disclosure. The unregulated nature of environmental reporting means that management have great discretion about which targets to report, the form of that reporting and the consistency of that reporting over time.

We look at the reporting of targets by 20 UK companies from 2004- 2008. These 20 companies were drawn equally from high- and low- impact environmental companies. The use of a longitudinal study allows us to track targets over time. We find widespread use of targets. We find 267 targets across the 100 firm years studied. We also found evidence of a difference in usage between those companies that are in high –impact environmental sectors and those that are in low-impact environmental sectors. First, we find that, in general, high-impact companies use more targets (2.9 per company) than low-impact ones (2.4 per

company). Second, overall although we find that companies prefer to use less precise targets (in terms of quantification and time period specified)we found that high-impact companies used much more precise targets than low-impact companies. Third, overall we find that companies disclose those targets that they meet while not disclosing those that they have missed. However, once more we find that it is the high-impact companies that are most likely to disclose targets that they have not met.

This research tested impression management and legitimacy theory. The findings are consistent with both theories. Overall, companies do appear to be managing their presentation of targets. However, high-impact companies appear to be presenting more detailed information and more negative information. This is consistent with legitimacy theory in that these companies are using environmental disclosures as a means of signalling their commitment to the environment.

This research represents a first step to investigating the way in which companies use targets in their corporate reporting. It would be useful to investigate the use of target-setting in other reporting contexts such as social or risk disclosure in the annual reports or in other geographical areas.

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Table 1: **Sample of companies from high impact "dirty" and low impact "clean" sectors**

High Impact "dirty" companies	**Low Impact "clean" companies**
BHP Billiton	Marks & Spencer's
Centrica	J Sainsbury
Xstrata	Tesco
BP	Barclays
Cairn Energy	Next
Anglo American	Mothercare
Lonmin	Charles Stanley
Rio Tinto	3i Group
Rexam	Friends Provident
Tullow Oil	HSBC

Table 2: All targets, met and not met disclosure for all companies for all years

Year	Low Impact Sector	High Impact sector	Total
2004	26	32	58
2005	28	28	56
2006	21	29	50
2007	23	26	49
2008	23	31	54
Total	121	146	267

Table 3: Low impact sector – Targets by type 1-4

Year	Type 1	Type 2	Type 3	Type 4	Total
2004	11	8	0	7	26
2005	2	1	0	5	8
2006	1	1	0	0	2
2007	0	2	1	2	5
2008	0	1	0	0	1
Total	14	13	1	14	42

Type 1 Generic target, not quantified, no time period (e.g. reduce emissions)
Type 2 Target quantified, no time period (e.g. reduce emissions by 10%)

Type 3 Generic target, time period specified (reduce emissions by 2010)
Type 4 Target quantified and time period specified (reduce emissions by 10% by 2010)

Table 4: high impact sector – Targets by type 1-4

Year	Type 1	Type 2	Type 3	Type 4	Total
2004	7	6	1	18	32
2005	3	0	0	0	3
2006	0	0	0	0	0
2007	0	3	0	0	3
2008	0	0	0	0	0
Total	10	9	1	18	38

Type 1 Generic target, not quantified, no time period (e.g. reduce emissions)
Type 2 Target quantified, no time period (e.g. reduce emissions by 10%)
Type 3 Generic target, time period specified (reduce emissions by 2010)
Type 4 Target quantified and time period specified (reduce emissions by 10% by 2010)

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Table 5 tracks all 2004 initial targets –Low Impact Sector

Year	Type 1	Type 2	Type 3	Type 4	Total
2004 initial targets	**11**	**8**	**0**	**7**	**26**
2005					
Cat 1	7	5		3	15
Cat 2		2		3	5
Cat 3	4	1		1	6
Cat 4	2	1		5	8
total	13	9	0	12	34
2006					
Cat 1	5	3		3	11
Cat 2	2	3		3	8
Cat 3	4	2		1	7
Cat 4	1	1			2
total	12	9	0	7	28
2007					
Cat 1	5	4		4	13
Cat 2	2	3			5
Cat 3	4	3		4	11
Cat 4		2	1	2	5
total	11	12	1	10	34
2008					
Cat 1	3	6		2	11
Cat 2	2	3	1	5	11
Cat 3	6	3		3	12
Cat 4		1			1
total	11	13	1	10	35
Total	58	51	2	46	157

Type 1 Generic target, not quantified, no time period (e.g. reduce emissions)
Type 2 Target quantified, no time period (e.g. reduce emissions by 10%)
Type 3 Generic target, time period specified (reduce emissions by 2010)
Type 4 Target quantified and time period specified (reduce emissions by 10% by 2010)

Cat 1 Target met and disclosed
Cat 2 Target NOT met and disclosed
Cat 3 No disclosure (not known whether met or NOT met)
Cat 4 Replacement/new target

Table 6 tracks all 2004 initial targets –High Impact Sector

Year	Type 1	Type 2	Type 3	Type 4	Total
2004 initial targets	7	6	1	18	32
2005					
Cat 1	4	3	1	8	16
Cat 2	2	1		6	9
Cat 3	1	2		4	7
Cat 4	3				3
total	10	6	1	18	35
2006					
Cat 1	3	3	1	5	12
Cat 2	5	2		10	17
Cat 3	2	1		3	6
Cat 4					
total	10	6	1	18	35
2007					
Cat 1	6	2	1	3	12
Cat 2	3	2		9	14
Cat 3	1	2		6	9
Cat 4		3			3
total	10	9	1	18	38
2008					
Cat 1	7	5	1	5	18
Cat 2	2	2		9	13
Cat 3	1	2		1	4
Cat 4					
total	10	9	1	15	35
Total	47	36	4	87	175

Type 1 Generic target, not quantified, no time period (e.g. reduce emissions)
Type 2 Target quantified, no time period (e.g. reduce emissions by 10%)
Type 3 Generic target, time period specified (reduce emissions by 2010)
Type 4 Target quantified and time period specified (reduce emissions by 10% by 2010)

Cat 1 Target met and disclosed
Cat 2 Target NOT met and disclosed
Cat 3 No disclosure (not known whether met or NOT met)
Cat 4 Replacement/new target

Table 7: Summary tracks all 2004 initial targets –Low Impact sector

	Type 1	Type 2	Type 3	Type 4	Total
Cat 1	20	18	0	12	50
Cat 2	6	11	1	11	29
Cat 3	18	9	0	9	36
Cat 4	3	5	1	7	16
total	47	43	2	39	131

Type 1 Generic target, not quantified, no time period (e.g. reduce emissions)
Type 2 Target quantified, no time period (e.g. reduce emissions by 10%)
Type 3 Generic target, time period specified (reduce emissions by 2010)
Type 4 Target quantified and time period specified (reduce emissions by 10% by 2010)

Cat 1 Target met and disclosed
Cat 2 Target NOT met and disclosed
Cat 3 No disclosure (not known whether met or NOT met)
Cat 4 Replacement/new target

Table 8 tracks all 2004 initial targets –High Impact Sector

	Type 1	Type 2	Type 3	Type 4	Total
Cat 1	20	13	4	21	58
Cat 2	12	7	0	34	53
Cat 3	5	7	0	14	26
Cat 4	3	3	0	0	6
total	40	30	4	69	143

Type 1 Generic target, not quantified, no time period (e.g. reduce emissions)
Type 2 Target quantified, no time period (e.g. reduce emissions by 10%)
Type 3 Generic target, time period specified (reduce emissions by 2010)
Type 4 Target quantified and time period specified (reduce emissions by 10% by 2010)

Cat 1 Target met and disclosed
Cat 2 Target NOT met and disclosed
Cat 3 No disclosure (not known whether met or NOT met)
Cat 4 Replacement/new target

Appendix 1

Environmental Disclosures: Performance Monitoring

Company: J Sainsbury Plc

Sector: Food Retail

Year 1 – 2004
T1 – Increase the efficiency of the transportation of products. (CSR – 2004, p.34)
T2 – Reduce Carbon Dioxide Emissions by 10% per square metre (CSR – 2004, p.34)
T3 – Reduce waste sent to landfill by 10% (CSR – 2004, p.34)

Year 2 – 2005
T1 – "Efficiency of distribution systems has improved" **– Target Met – Present** (CSR – 2005, p.82)
T2 – CO2 reduced by 11% per square metre since 2000– **Target met – Present – New Target 5% by 2008** (CSR – 2005, p.82)
T3 – Reduced packaging by 18% relative to turnover from 1999 **– Target met – Present** (CSR – 2005, p.82)

Year 3 – 2006
T1 – Road mileage reduced by almost 5% **- Target met – Present** (CSR – 2006, p.12)
T2 – "Progress made" – **Target not yet met – Present** (CSR – 2006, p.12)
T3 – "In line with of increasing recycling relative to turnover" – **Target met – Present** (CSR – 2006, p.12)

Year 4 – 2007
T1 - "On Target" **– Target met – Present** (CSR – 2007, p.11)
T2 – Target changed to 25% by 2012, previous target not mentioned **– Not met – Not Present** (CSR – 2007, p.11)
T3 – "On Target" **– Target met – Present** (CSR – 2007, p.11)

Year 5 – 2008
T1 – "On Track" – **Target met – Present** (CSR – 2008, p.20)
T2 - "On Track" – **Target met – Present** (CSR – 2008, p.20)
T3 – Achieved a 2.6% reduction, "on track" – **Target Met - Present** (CSR – 2008, p.21)

- **Specific and consistent targets & dates**
- **Softer target in 2006.**